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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/068,278	07/09/98	LOCHER	B ROSS11-PC/P

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QM32/0623

EXAMINER

WILSON, A

ART UNIT	PAPER NUMBER
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3722

12

DATE MAILED: 06/23/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/068,278

Applicant(s)

LOCHER ET AL.

Examiner

Adrian M Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 5/22/2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-49, 75-82, 84, 85, and 87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-49, 75-82, 84, 85, and 87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☒ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7 and 11.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Response to Amendment

1. Applicant's Preliminary Amendment filed 5/5/1998 has been received. However, the amendments to page 4, line 7 and page 5, line 12 have not been entered due to the inconsistencies with the language. The applicant is required to resubmit the amendment to these sections with the correct line numbers.

Faxing of Responses to Office Actions

1. In order to reduce pendency and avoid potential delays, TC3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 305-3579. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Election/Restrictions

2. Applicant's election with traverse of Group I, claims 39-49, 75-82, 84, 85 and 87 in Paper No. 10 is acknowledged. The traversal is on the ground(s) that the present application is a Continuation of the PCT Application, not the PCT application itself. This is not found persuasive because priority was claimed and granted under 35 U.S.C. 371 and therefore this application is subject to the rules regarding 35 U.S.C. 371 applications. (See the Manual of Patent Examining Procedure, MPEP, 1893.03(d)).

The requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "group of cable-processing tools" consisting of "crimping tools, twisting tools, punching tools, clamping tools, marking apparatuses and grinding means" must be shown or the feature(s) canceled from the claim(s) 43. No new matter should be entered.

Claim Objections

4. Claim 41 states "said tool supports (1b, 2b; 1c, 2c)" in line 2 of the claim. This is inconsistent with the language of claim 39, line 2 from which it depends. Correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 39-49, 75-82, 84, 85 and 87 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 39:

Line 5 reads "said tools" and should be changed to read "said at least two tools".

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Regarding claim 40:

Claim 40 recites the limitation "upper and lower positions" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Line 4 reads "said tools" and should be changed to read "said at least two tools".

Regarding claim 41:

Line 1-2 reads "said tool supports" and should be changed to read "said pair of tool supports".

Regarding claim 42:

Line 3 and line 4 read "said tools" respectively, and should be changed to read "said at least two tools".

Line 3 reads "optionally continually positionable holders". The term "optionally" renders the scope of the claim indefinite.

Regarding claim 44:

Line 1-2 reads "said tool supports" and should be changed to read "said pair of tool supports".

Line 4 reads "optionally independently of one another". The term "optionally" renders the scope of the claim indefinite.

Regarding claim 47:

Line 3 reads "said motor" and should be changed to read "said at least one motor".

Regarding claim 76:

Claim 76 recites the limitation "said clamping feed" on page 10, line 5. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 77:

Claim 77 recites the limitation "said clamping and centering apparatus" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Lines 5-6 read "at least approximately perpendicular". The term "approximately" renders the scope of the claim indefinite.

Line 6 reads "said jaws" and should be changed to read "said centering jaws".

Regarding claim 81:

The term "relatively large" in line 3 is a relative term which renders the claim indefinite.

The term "relatively large" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Correction is required.

Regarding claim 87:

The applicant seems to be claiming matter that is not claimed in claim 39. "A first and a second belt drive for a cable feed" is not claimed in claim 39.

Line 4 states "if required". This term renders the scope of the claim indefinite because the applicant seems to be saying that one skilled in the art can either limit the parent claim by having a gripping apparatus or not.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 39-42, and 44-46 are rejected under 35 U.S.C. 102(a) as being anticipated by Tomoji JP9046844 (Patent Abstract).

Tomoji discloses the claimed invention comprising: a pair of tool supports (not numbered but attached at the bottoms of 4 and 4'), at least two tools (7) in pairs (7A,B, 7C,D), and a tool support feed means (3), above a first transport path (not numbered but coincident with 8), along which a cable/wire (8) is inserted in a feed direction, wherein said tool support feed means is formed for a controlled lateral drive for controlled sideward movement of said pair of tool supports, within a working range laterally with respect to said transport path (see figure).

Tomoji also discloses separate tool support feed means (3, 3') coordinated with each tool support (not numbered but attached at the bottoms of 4 and 4'), so that upper and lower positions of said at least two tools (7) can be combined (see figure)

Tomoji also discloses that said pair of tool supports are held on a common support part (2) and can be displaced together with said common support part (see figure).

Tomoji shows that said tool supports (not numbered but attached at the bottoms of 4 and 4') have, in a lateral direction, a plurality of continually positionable holders (4, 4') for said at least two tools can be selected from a group of cable-processing tools.

Tomoji discloses that said pair of tool supports (not numbered but attached at the bottoms of 4 and 4') are adjustable relative to one another or toward and away from said transport path (as detailed above), independently of one another. (See abstract

lines 9-11, which states "selectively making the cutting tools 7A or 7B...oppose...cutting tool 7C or 7D).

Tomoji shows that the tools (7) comprises at least two pairs of knives (7a) and are arranged in pairs (7A, 7B) and (7C, 7D) said knives disposed above and below said cable/wire (8).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoji as applied to claim 39 above, and further in view of Wollermann et al. U.S.P. # 4,879,926.

Regarding claims 47 and 48 -

Tomoji discloses the claimed invention except for a tool support which comprises at least one motor and a programmable microprocessor for control of said at least one motor. Tomoji also does not disclose tool support feed means comprising a cable absence sensor.

Wollermann et al. teaches that it is known in the art to control the operation of a wire stripping machine by CPU (see column 16, lines 6-12 and further lines 48-68 continuing on to column 17 lines 1-32) as well as a motor (91) (see lines 39-40).

Wollermann et al. also teaches that it is known in the art to employ a sensor (PS2) in combination with the CPU to signal a home position when a wire to be stripped is in position. (See column 16, lines 33-38)

Regarding claim 49 –

Tomoji discloses the claimed invention except for a tool support which comprises at least one motor and a programmable microprocessor for control of said at least one motor comprising: a plurality of tool support feed means (3, 3') holding a plurality of tool supports (attached to the bottoms of 4, 4', not numbered) arranged along a first transport path (coincident with 8, see fig. 1)

Wollermann et al. teaches that it is known in the art to control the operation of a wire stripping machine by CPU (see column 16, lines 6-12 and further lines 48-68 continuing on to column 17 lines 1-32) as well as a motor (91) (see lines 39-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of Tomoji with the CPU controlled operation, employing a sensor, as taught by Wollermann et al. for the purpose of better control of the automated process.

11. Claims 75-78, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoji as applied to claim 39 above, and further in view of Stepan U.S.P. #4,027,557.

Tomoji discloses the claimed invention except for a processing station which comprises at least one of a rotatable knife, and a second knife station having a rotatable knife

whose axis of rotation is along at least one transport path is provided in addition to a knife station.

Tomoji also does not teach that it is known in the art to have a process for stripping insulation of a cable/wire which comprises; holding a cable in a centered manner on at least two sides, during incision with a knife, arranging at least one holding point in immediate vicinity of said knife, at least one of coupling a knife feed with at least one feed for clamping and centering apparatus and separating said clamping feed from said knife feed, and at least one of holding at least one of at least one transport means and centering apparatus nonrotationally and rotating said centering apparatus closest to said knife together with said knife.

Tomoji also does not teach that it is known in the art to have at least one of a clamping and centering apparatus which comprises at least two clamping or centering jaws which lie in a plane, each having a retaining surface, which retaining surfaces at least approximately perpendicular to a radial plane with a cable/wire and formed in such a way that closing of said centering jaws to approximately zero cable diameter is possible.

Stepan discloses a knife that is rotatable (9) via a head (7) and spindle (5) combination. This combination is considered by this examiner to constitute a knife station. (See column 4, lines 25-27)

Stepan also claims stripping the insulation from a cable-like article, holding a cable in a centered manner on at least three sides (see claims 1 and 2), during incision with a knife (see claims 8, and 9), arranging at least one holding point (see claim 1 lines

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10-11) in the vicinity of said knife (the knife and the jaws which serve as holding/clamping means are integral see claim 8) and therefore at least one feed for clamping and centering apparatus is also taught. Stepan also teaches rotating a centering apparatus (detailed above) together with said knife (see claim 6) being reminded again, that the knife and the jaws with hold and center the wire are integral, so to rotate one is to rotate the other.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of Tomoji with the knife station as disclosed by Stepan for more thorough cutting of the wire coating.

It would likewise have been obvious to one having ordinary skill in the art at the time the invention was made to have further modified the invention of Tomoji by centering the wire to be cut, holding said wire in the vicinity of the intended cut and rotating the holding/cutting/centering apparatus as taught by Stepan because the wire must obviously be centered before it is cut as a matter of common sense, to hold it in the vicinity is a matter of choice of operation but in this case must be the case because the cutting and holding means are integral, and rotating the holding/cutting/centering apparatus to better effect a thorough cut.

Regarding claim 77 –

As stated above Stepan discloses at least three jaws (see fig. 3) for holding/cutting/centering a wire to be stripped of its insulation, said at least three jaws lying in a common plane (see claim 11, lines 15-18). Each jaw has a retaining surface (see fig. 2 and column 5, lines 48-51), said retaining surfaces at least approximately

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perpendicular to a radial plane (indicated by dashed lines) with the cable/wire (see fig. 3 center of the figure) and are formed in such a way that closing of said centering jaws to approximately zero cable diameter is possible (see fig. 7).

Regarding claim 78 –

Tomoji discloses cutting edges (7a) on knives (7A, 7B, 7C, and 7D), said cutting edges disposed parallel to a tangential plane of a wire (8) having a sheath (8a).

Tomoji does not disclose that it is possible to close the cutting edges to approximately zero cable diameter.

However, as stated above Stepan discloses this feature in fig. 7.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of Tomoji with the invention of Stepan for the purpose of stable holding and centering, smoother operation of the centering jaws by retention, said jaws as a matter of common sense should be disposed about the periphery and in the same radial plane of the cable/wire since the cutting is taking place about the central axis of the wire/cable, as well as to form the centering jaws in such a way as to effect closure to zero cable diameter for the purpose of severing the now end stripped wire from the supply cable/wire.

Regarding claim 81 –

Tomoji does not disclose centering jaws that are L-shaped in section with retaining surfaces that cover a relatively large axial range of a cable sheath and ends that project directly adjacent to a knife.

However, it would have been an obvious matter of design choice to make the different portions of the centering jaws L-shaped or of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47.

Stepan shows in figure 16, a clamping jaw (7i) whose ends (34) are adjacent to a cutting knife (7i, 16f) applicant is again reminded that the knife and the clamping jaw are disclosed as being integral.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention disclosed by Tomoji with the clamping jaw disclosed by Stepan, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

12. Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoji as applied to claim 39 above, and further in view of Baba et al U.S.P. # 4,009,738.

Tomoji discloses the claimed invention except for at least one of an upper and a lower roller, continuous belts of a pair of rollers, a pair of continuous belts, respectively, and upper and lower tool holders are each displaceable transversely with respect to a transport path, relative to an opposite part in each case, so that a twisting procedure can be performed on a cable lying in between.

Baba et al. teaches that it is known in the art to move cutting blades relative to each other and the a transport path to accomplish a wire twisting procedure. (See column 4, lines 40-54)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the invention of Tomoji with the cutting blades and twisting procedure as disclosed by Baba et al. for the purpose of positioning the wire and accomplishing a twisting operation as desired.

13. Claims 39 and 85, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoji in view of Loustau U.S.P. # 4,833,778

Tomoji discloses the claimed invention except for a guide apparatus which can be swiveled at least one of laterally and upward or downward, said guide apparatus can be swiveled at least one of laterally and upward to increase insulation stripping lengths, in order to enable a cable/wire already lying on another side of tools to be moved back against a feed direction without collision.

Loustau discloses a guide apparatus (102, see figures 3e, and 3f) that can be swiveled upward and downward, thereby enabling wire (11) already lying on tool (18b) to be moved back (see figures 3b-e).

It would have been obvious to one having ordinary skill in the art to have modified the apparatus disclosed by Tomoji with the guide apparatus as taught by Loustau for the purpose of moving a wire clear of the cutting blades for further processing.

14. Claim 87 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomoji as applied to claim 39 above, and further in view of Hoffa U.S.P. #5,526,718.

Tomoji discloses the claimed invention except a first and a second belt drive for a cable feed, wherein a gripping apparatus is coordinated with said second belt drive, said second belt drive releasing said cable so that said cable can be removed by a gripping apparatus.

Hoffa teaches that it is known in the art to have first and second belt drives (47, 48) and (49, 50) for a cable feed, wherein a gripping apparatus (47', 48) is coordinated with said second belt drive, said second belt drive releases said cable (10) so that said cable can be removed by said gripping apparatus. (See column 7, lines 1-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus disclosed by Tomoji with the gripping apparatus, and first and second belt drives disclosed by Hoffa, for the purpose of extracting separated sections.

Allowable Subject Matter

15. Claims 79, 80, and 82 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

16. Copies of the following references itemized on the applicant's Information Disclosure Statement were not provided and therefore were not considered:
Sheet 1 of 3, Other Documents section in its entirety.
Sheet 2 of 3, Other Documents section in its entirety.

17. Prior Art References

The prior art references listed in the attached PTO-892, but not used in a rejection of the claims are cited for their device structure. Andren, Hagstrand, Talley, Gudmestad, de Givry, and Pick .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrian M Wilson whose telephone number is 703-308-6399. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A L Wellington can be reached on 703-308-2159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

amw
June 16, 2000


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